

Ocean Protection Council

Priorities and Progress

November 2006



Five Big Problems

1. Habitat Destruction
2. Invasive Species
3. Pollution
4. Overharvesting
5. Global Climate Change



California's
Official
State
Animal Can
No Longer
Be Found in
California,
Except . . .





CALIFORNIA REPUBLIC











© 2006 Europa Technologies
Image © 2006 DigitalGlobe

Google

Pointer 33°58'25.75" N 118°25'39.52" W elev 8 ft Streaming 100%

Eye alt 28373 ft



Mescalitan Island

© 2006 Europa Technologies
Image © 2006 DigitalGlobe

©2006 Google™

Pointer 34°25'01.29" N 119°50'12.75" W elev 16 ft Streaming ||||| 100%

Eye alt 10294 ft





California Current Marine Ecoregion Trawling Impact







Invasives

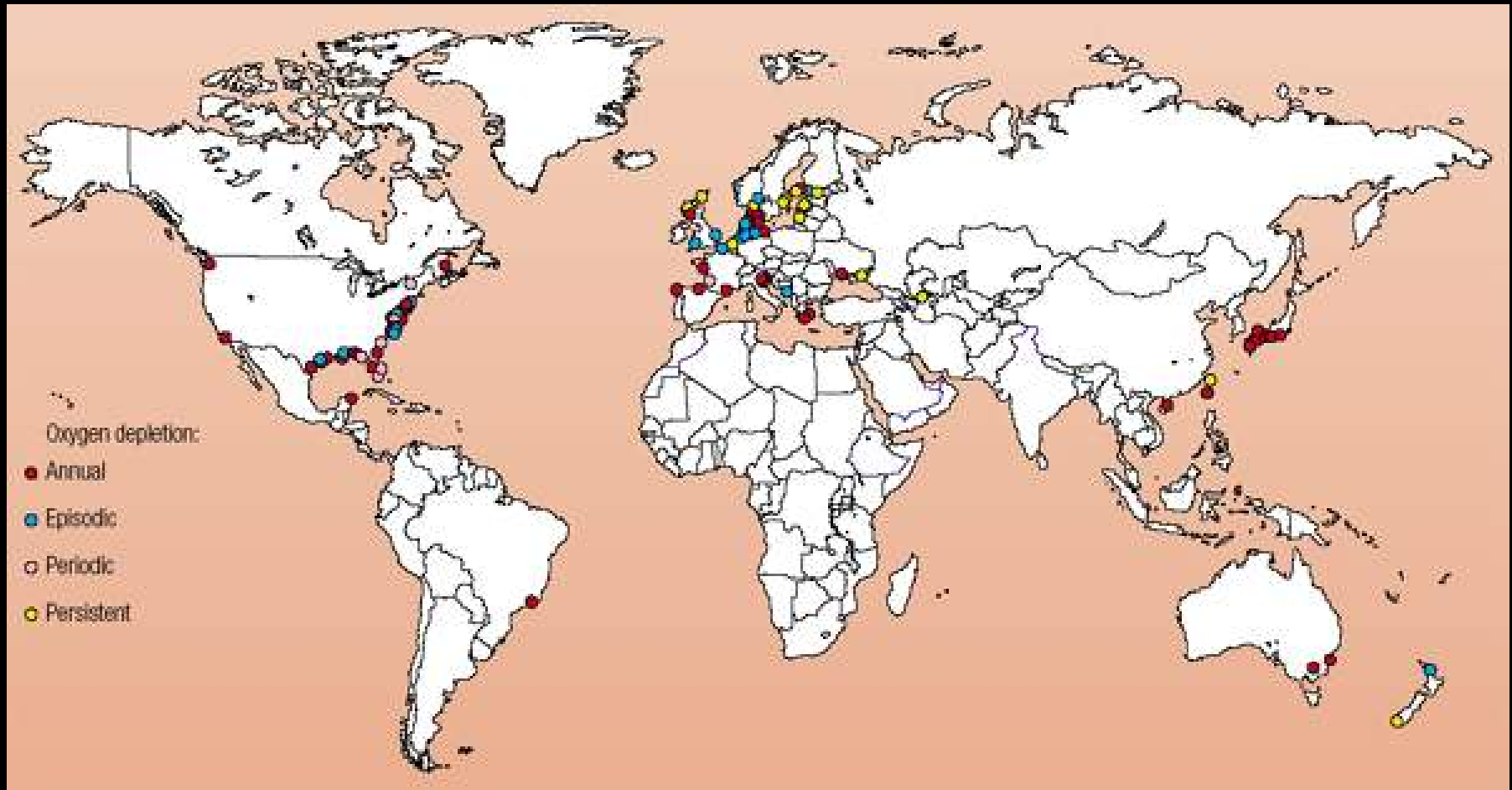
- California Aquatic Invasive Species Plan
- Goals: Prevention and Rapid Response



Pollution



Dead Zones





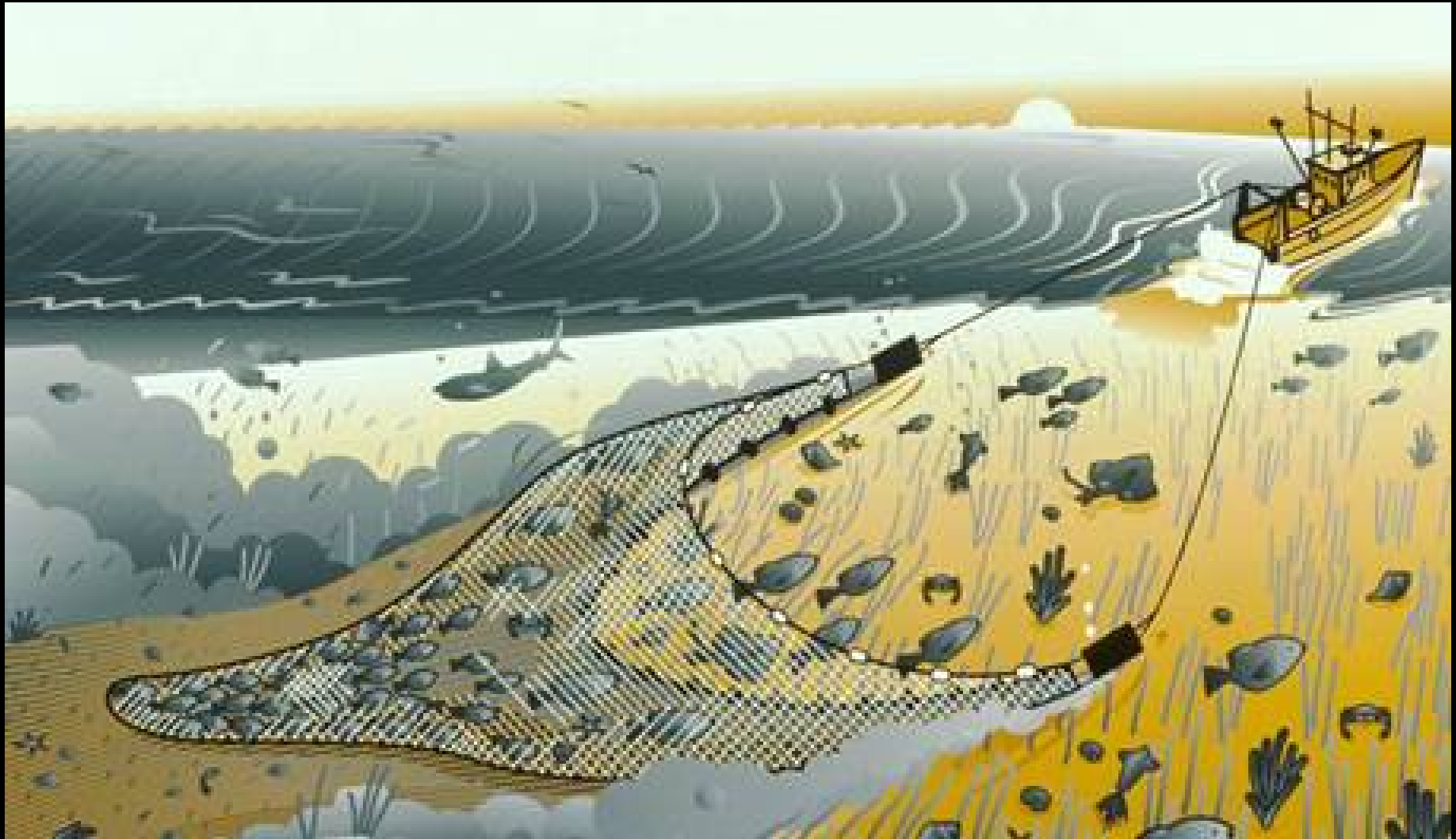




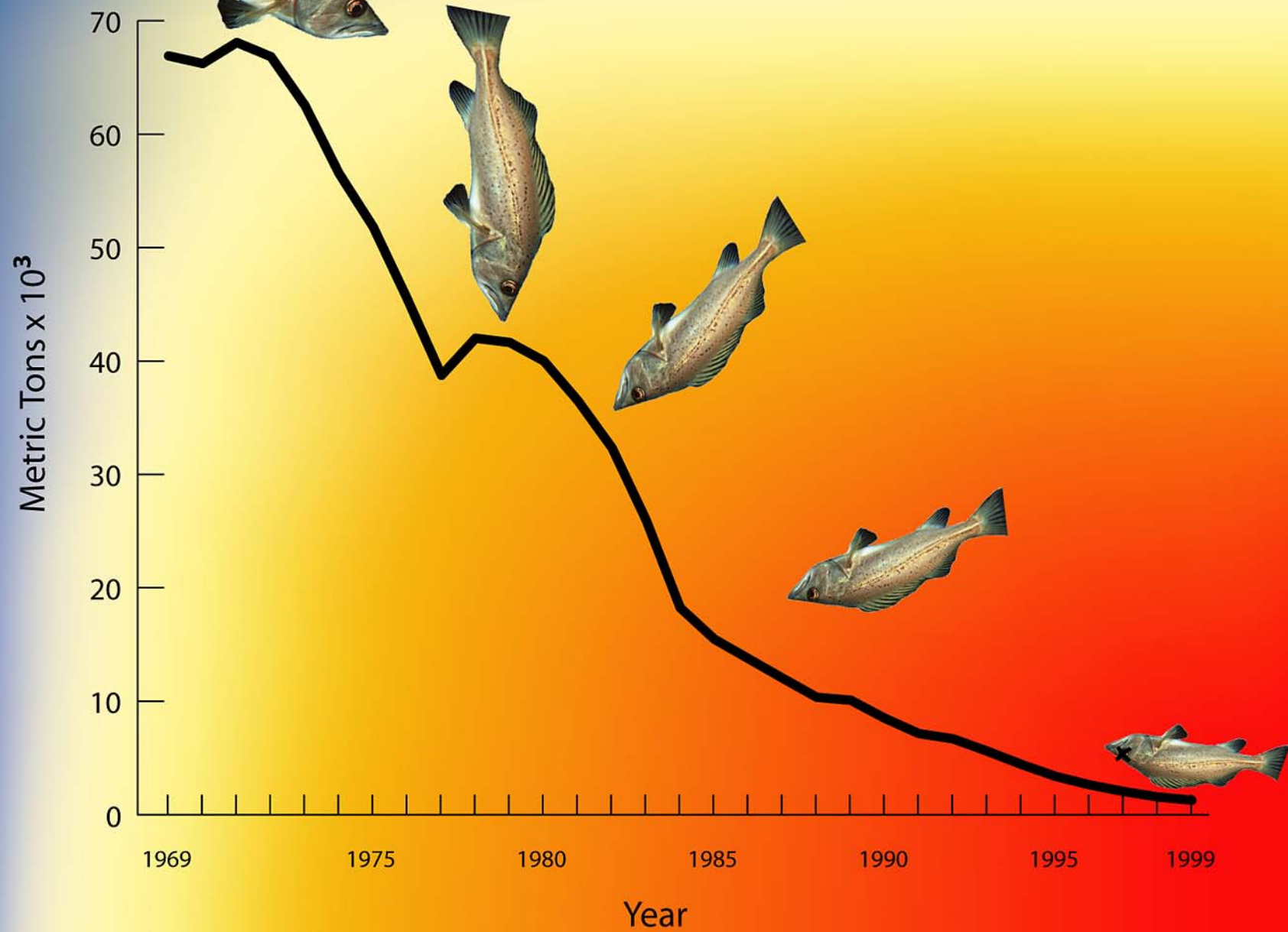




Overharvesting





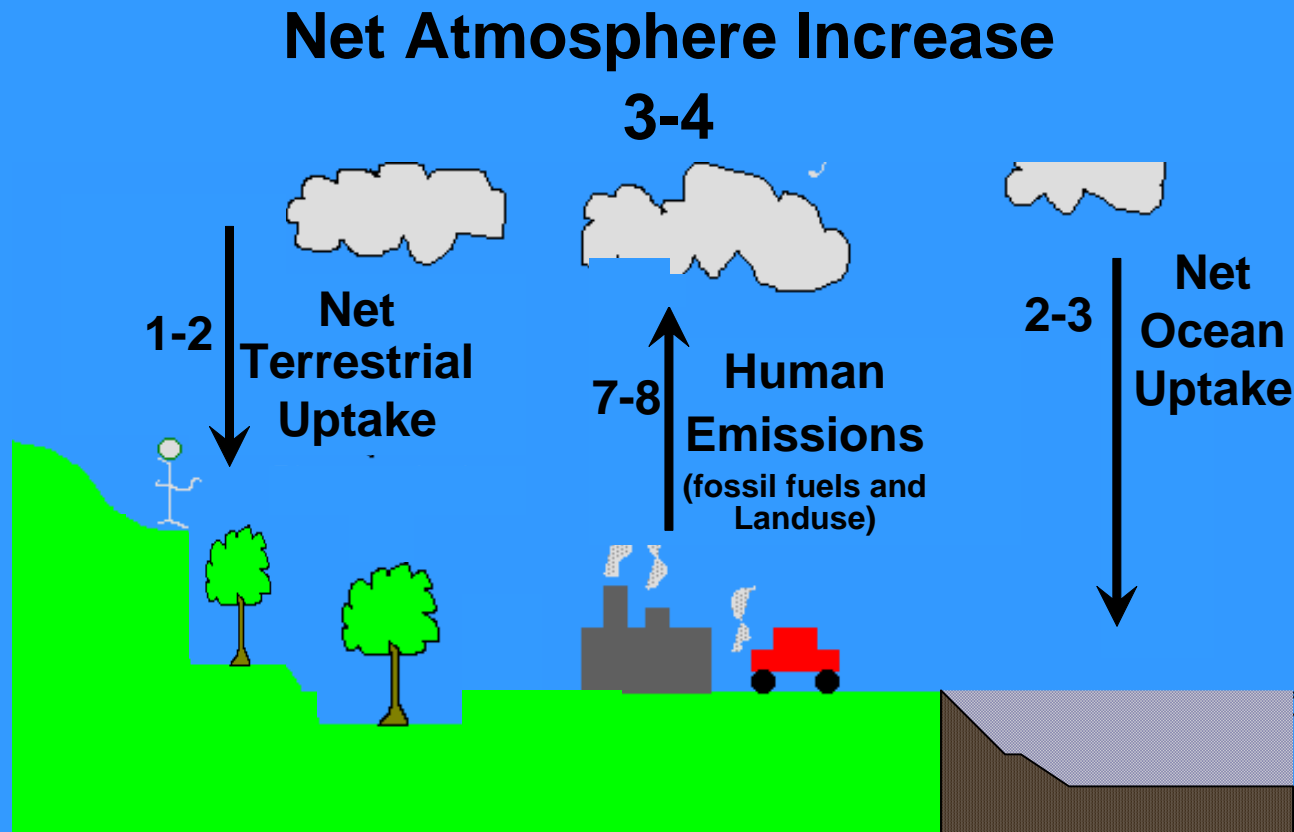


Global Climate Change



Simplified Carbon Cycle

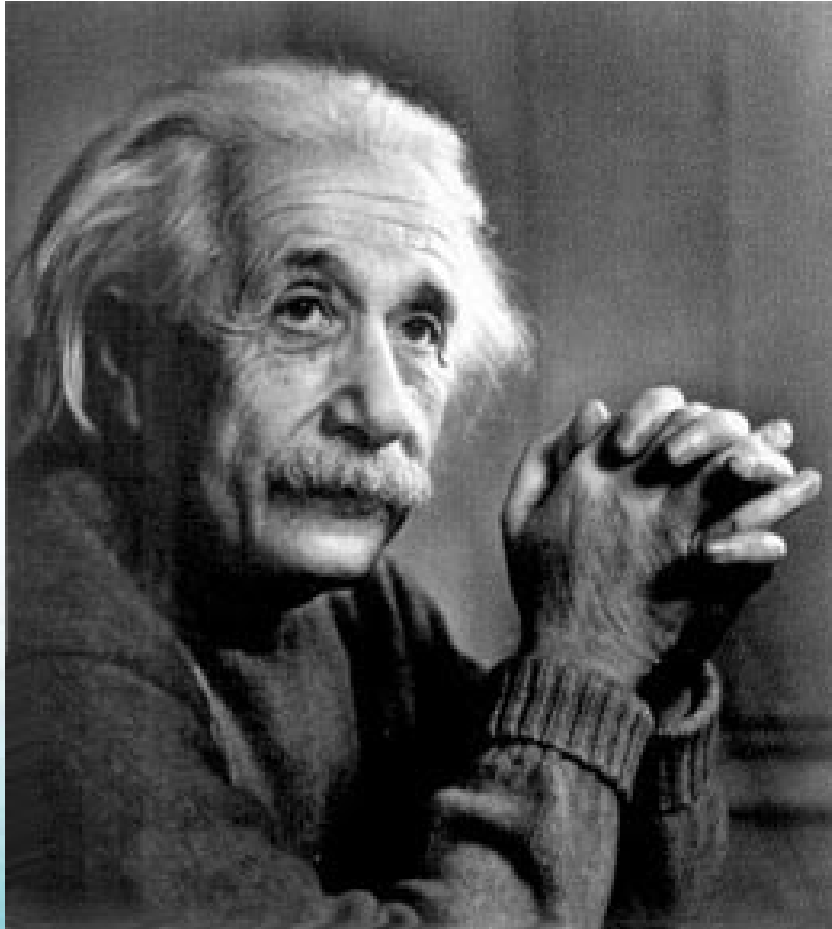
(carbon flows in GtC/yr)



NOTE: while terrestrial and Ocean uptake are constant with time (although they change with climate), Human emissions are changing. These figures are based on IPCC Third Assessment Report (*Prentice et al., 2001*) with updated values on human emissions based EIA estimates.







We can't solve
problems by using
the same kind of
thinking we used
when we created
them.

-Albert Einstein (1879-1955)



Ocean Protection Council

Priorities and Progress



Policy and Funding Priorities*

1. Governance
2. Research and Monitoring
3. Water Quality
4. Marine Life Protection Act (MLPA) and Marine Life Management Act (MLMA)

*Our funding priorities match our policy priorities.



1. Governance

- Enforcement
- Funding
- Develop Metrics to Measure Progress
- Ecosystem-Based Management



Enforcement



Funding



2. Research and Monitoring

- Seafloor Mapping
- Marine Protected Area Monitoring
- Ocean Observing
- Other (TBD)



Amber Mace



In her now famous “Mission Accomplished” photo

3. Water Quality

- Marine Debris
- Low-Impact Development
- Once-Through Cooling



Marine Debris







- 8 million pieces of plastic litter enter our oceans every day, affecting over 267 marine species
- In the '80's, researchers estimated 100,000 marine mammal deaths per year in the N. Pacific due to plastic nets and fishing line alone
- Only 5.5% of plastic waste was recycled in 2001





Snapping turtle
June, 2000





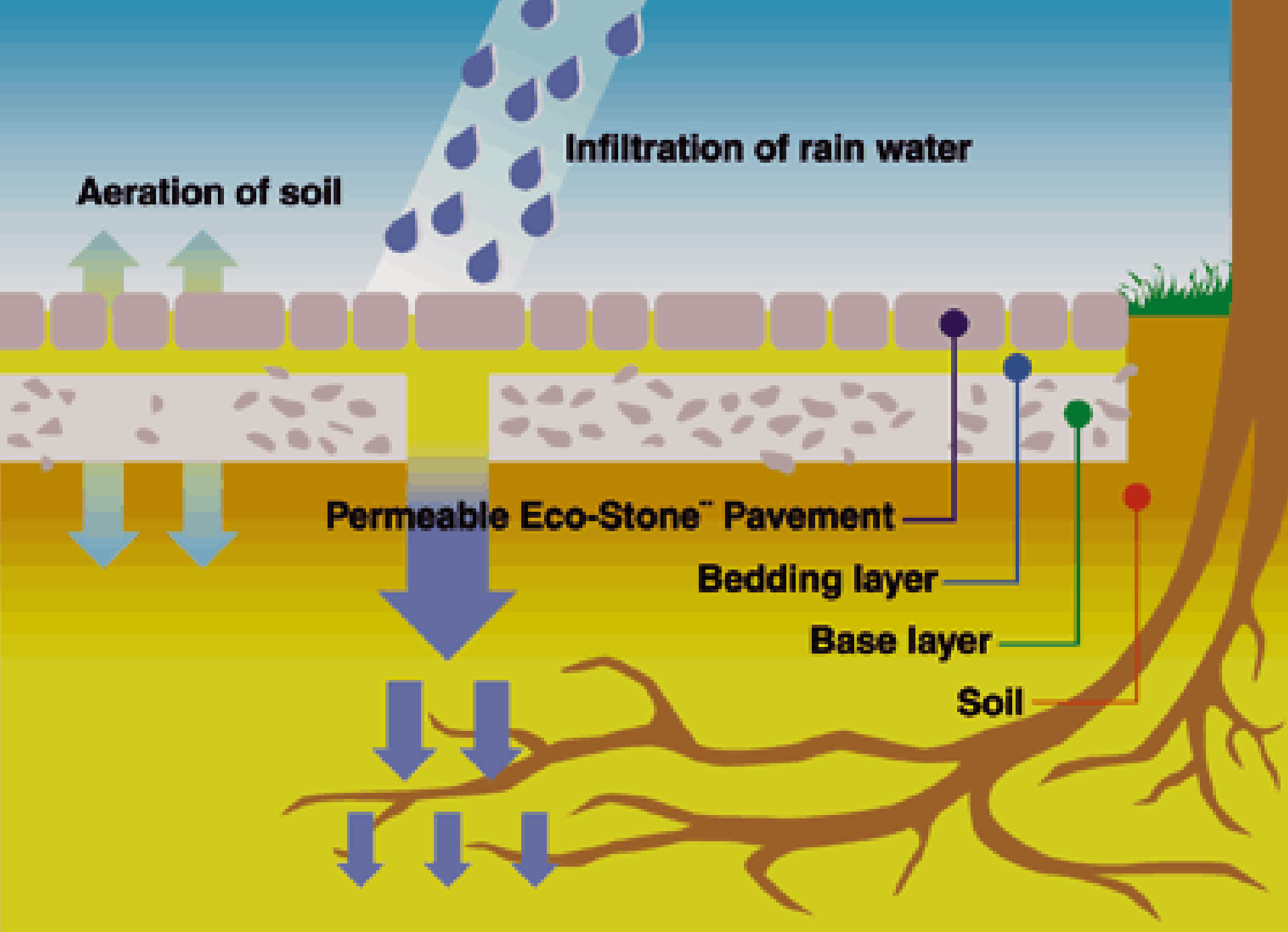
Other Problems

- **Costs** – Caltrans alone spends \$41 million/yr. removing debris from state highways.
- **Beach Experience** – Who wants junk on the beach? How is tourism impacted?
- **Toxicity** – Toxics are attracted to plastic (e.g. PCBs, PAHs, DDT). And plastic itself can contain harmful chemicals (e.g. phthalates).
- **Invasive Species** – Plastic makes a terrific raft.



Permeable Surfaces





porous asphalt

standard asphalt





Once-Through Cooling

- 17 billion gallons a day permitted statewide
- Billions of small organisms killed by entrainment



4. MLPA/MLMA

- Funding
- Monitoring
- Innovative Fisheries Management



Funding



Monitoring



Innovative Fisheries Management









Why We Do What We Do















Frazier Lake
Organically Grown Crabs

California's Ocean Economy*

\$46 Billion/Year

*Source: National Ocean Economics Project













© QT Luong / terragalleria.com





© 1994 RINCON POINT RACE TRACK

© 1994 RINCON POINT RACE TRACK

CALIFORNIA CLASSICS

RINCON POINT

RINCON POINT RACE TRACK • AUGUST 1994

© 1994 RINCON POINT RACE TRACK • AUGUST 1994



